

**STANDARD CHLORINE CHEMICAL CO., INC. (SCCC) SUPERFUND SITE
Lot 50**

**Identification of Additional Potentially Responsible Party (PRP)
Sybron Chemicals, Inc., as successor to Tanatex Chemical Corporation**

Identity of PRP: Sybron Chemicals, Inc., a Delaware corporation (Sybron), 200 Birmingham Road, PO Box 66, Birmingham, NJ 08011, as successor to Tanatex Chemical Corporation, a New Jersey corporation (Tanatex). As used herein, Sybron and Tanatex, collectively, (Sybron/Tanatex).

History of succession: In the 1960s, Tanatex, a NJ corporation, was acquired by the Sybron Corporation, a New York corporation (Sybron Corp), which operated Tanatex as a wholly-owned subsidiary until December 31, 1970 when Tanatex was merged into Sybron Corp. Between 1970 and 1987, Tanatex operated as Tanatex/Sybron, a division of Sybron Corp and part of the Sybron Chemical Group. In 1987, Sybron Chemical, Inc., a New Jersey corporation (Sybron NJ), acquired the Sybron Chemical Group, including Sybron/Tanatex, from Sybron Corp. In 1990, Sybron NJ was merged into a newly formed Delaware corporation also called Sybron Chemicals, Inc. (Sybron). In 2000, Bayer AG (Bayer), a German corporation, acquired the world-wide operations of Sybron/Tanatex.¹ Based on a review of environmental cases instituted after 2000, it is believed that Sybron retained liability for environmental contamination arising from some operations prior to the acquisition by Bayer, but that Bayer assumed liability from some operations.

Relationship of the Sybron/Tanatex to the SCCC Site: Operator, chemical (dye carrier) of a dye carrier manufacturing operation and a research laboratory for formulation of dye-carrier products on Block 287, Lot 50 between 1957 (or earlier) and October 1, 1963.

Overview of Tanatex's dye carrier operations: Between the mid-1950s and the last Quarter of 1963, Tanatex leased buildings and equipment on Lot 50 from the property's owners for use in a chemical manufacturing operation that produced dye carrier chemicals for the textile, paper and leather industries. In late 1963 or early 1964, Tanatex moved its operations to Lyndhurst, New Jersey. During its years of operation at the Site, Tanatex was the sole occupant of Building No. 3, which it used for its manufacturing operations.² It also may

¹ Bayer merged the textile auxiliary units of both Bayer and Sybron into its Textile Processing Chemicals (TPC) business unit of Bayer Chemicals AG. In 2004, Bayer Chemicals AG and a portion of Bayer's polymers business were spun off to form a new company, LANXESS AG. See www.lanxess.com for history after 2006.

² Lessees: Tanatex - Exception D to the 1959 deed by which Lot 50 was conveyed by Crown Rubber Products to Keaton Rubber, expressly references the "Rights of Tanatex Chemical Corp. by sundry leases." The 1962 Agreement for sale of Lot 50 between Keaton and SCCC references three leases (#1, #2, #3), and gives termination date of one of these as February 1964.

have leased some of Building No. 2 and Building No. 4 prior to SCCC's acquisition of the property in 1962. In its years of operation, Tanatex leased equipment from the Site's owners for use in its operations. It also had use of the 829 ft. long railroad side track located adjacent to Buildings 2 and 4 for transportation of materials to and from Lot 50.³

The principal raw material known to have been used by Tanatex in its dye carrier manufacturing operations was technical trichlorobenzene, a mixture composed primarily of 1,2,4-trichlorobenzene (1,2,4-TCB) and 1,2,3 trichlorobenzene (1,2,3-TCB). Although no records have been located which document the quantity of technical trichlorobenzene used by Tanatex in its operations on Lot 50, it is known that by the late 1960s, Tanatex represented 60% of the TCB dye carrier market, with annual purchases of approximately 3,000,000 lbs of technical trichlorobenzenes.⁴

Available formulations of technical trichlorobenzene from this period are known to have contained small amounts of dichlorobenzene isomers and higher chlorinated chlorobenzenes (i.e., tetrachlorobenzenes, pentachlorobenzenes and hexachlorobenzenes). As described more fully below, 2,3,7,8-TCDD is a known trace contaminant in formulations of technical trichlorobenzene from this period.

It is believed that Tanatex also used methylnaphthalenes⁵, alkylated naphthalenes, dichlorobenzenes, and biphenyl⁶ as well as various surfactants and solvents in its operations.

Discharges and/or spills from Tanatex's operations in Building No. 3 were conveyed via the floor drains in that building to the several discharge outlets near Buildings No. 3 and Building No 4.⁷

The chemical research laboratory operated by Tanatex was located on the 2nd floor of Building No. 1. During its tenure at the Site Tanatex applied for and obtained at least one patent a dye carrier for the dyeing of synthetic fabrics. The experiments undertaken in support of the 1961 application for this patent involved the use of the following chemicals: Pine Oil; oleic Acid; triethanolamine; naphthalene; 1-methylnaphthalene; 2-methylnaphthalene; tri-methylnaphthalene; di-methylnaphthalene; phenol; xylene; toluene; and sulfated butyl oleate. The several chemical compositions claimed in this patent all involved substances composed of 70% to 98% methylnaphthalenes.

³ By agreement dated July 23, 1957 among the Erie Railroad, Keaton Rubber Co., and Tanatex Chemical Corporation, Tanatex was given the right to use and be served by a 829 ft. long side track. Effective December 10, 1962, this agreement was assigned by Keaton to SCCC in connection with the sale of Lot 50 from Keaton to SCCC.

⁴ Information is from a 1970 proprietary study. Publication is prohibited without prior approval from author.

⁵ A 1961 Tanatex dye-carrier formulation patent application involved various chemical compositions composed of 70%-98% methylnaphthalenes.

⁶ Sybron/Tanatex is known to have manufactured biphenyl at its operations in Lyndhurst, NJ. It is possible these operations were also conducted at the Kearny facility.

⁷ See PRP Report on Edison-Cooper Industries for a full description of discharge piping and outlets.

SCCC Site Contaminants Attributable to Tanatex Operations:

- **1,2,4-TCB:** Analytic data from various sampling events at locations on or near Lot 50 show significantly elevated concentrations of 1,2,4 TCB in surface water, sediment and ground water samples reasonably attributable to activities conducted on Lot 50. As stated above, the principal chemical material used in the dye-carrier formulations manufactured by Tanatex in Building No. 3, was technical trichlorobenzene, a mixture of isomers of trichlorobenzene that typically contained approx. 60-70% 1,2,4-trichlorobenzene (1,2,4-TCB). Tanatex is the only entity which transported, stored and used trichlorobenzenes on Lot 50.⁸ Contamination of the various referenced media would have occurred through the routine discharge of effluent from Building No. 3 and also, perhaps, as a result of transportation and/or storage accidents and spills.
- **Dichlorobenzenes and monochlorobenzene:** These lower chlorinated chlorobenzenes have also been found in sediment, surface water and groundwater samples associated with manufacturing operations conducted on Lot 50. Tanatex operations may have been one source of these contaminants in the sampling locations associated with discharge points and pathways from Building No. 3, as these lower chlorinated chlorobenzenes were present in the technical trichlorobenzene used by Tanatex.⁹ Additionally, in surface water, soil and sediment samples, these lower chlorinated chlorobenzenes may be present as degradation products from the reduction of technical trichlorobenzene over time.
- **Naphthalene derivatives:** Elevated concentrations of naphthalene derivatives have been found in various samples taken at locations associated with manufacturing operations conducted on Lot 50. Only Tanatex operated a chemical manufacturing facility on Lot 50 that is known to have produced naphthalene-related products (specifically dye-carriers).
- **2,3,7,8-TCDD:** 2,3,7,8-TCDD has been discovered in surface water and sediments along the discharge pathways from the Tanatex operations conducted on Lot 50. The attached 2,3,7,8-TCDD data maps showing the analytic results of 2,3,7,8-TCDD sampling show as strong correlation between manufacturing activities on Lot 50 and the presence of 2,3,7,8 TCDD in pathways leading from that manufacturing area. The technical trichlorobenzenes used by Tanatex in the late 1950s early 1960s typically contained small quantities of the higher-chlorinated chlorobenzenes isomers with 2,3,7,8-TCDD present as a contaminant. The effluent discharges and inadvertent spills and releases of technical trichlorobenzene by Tanatex during the course of its operations are the likely sources of this

⁸ SCCC separated trichlorobenzene isomers on Lot 49 of the Site during the 1970s. However, the trichlorobenzenes used by SCCC never left Lot 49 (and the rail line adjacent to it). They were transported via rail directly to Lot 49, stored and separated on Lot 49 and shipped via rail from Lot 49.

⁹ SCCC dichlorobenzene operations on Lot 50 have previously been identified as another source of these contaminants.

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2,3,7,8-TCDD contamination.¹⁰ As stated above, Tanatex is the only entity known to have used trichlorobenzenes in manufacturing activities conducted on Lot 50.

¹⁰ Note: The distillation pot located in the still Building on Lot 49 (in the northeastern section of the SCCC Site) was used for naphthalene refining and separation of trichlorobenzene isomers and has been identified as a possible 2,3,7,8 TCDD source. However, none of the materials used, produced or stored in connection with these operations were ever transported beyond the distillation manufacturing area.